

AUTOMATIC SCHEME SELECTION FOR TOOLKIT HEX MESHING

ABSTRACT OF THE DISCLOSURE

5 A method of and software for automatically determining whether a mesh can be generated by sweeping for a representation of a geometric solid comprising: classifying surface mesh schemes for surfaces of the representation locally using surface vertex types; grouping mappable and submappable surfaces of the representation into chains; computing volume edge types for the representation; recursively traversing surfaces of the representation and grouping the surfaces into source, target, and linking surface lists; and checking traversal direction when traversing onto linking surfaces.

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